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Examiner: Bashore, William L.

Attorney Docket No.: 20-546

In re Patent Application of:

JAKUBOWSKI

Title: **SITE MINING STYLESHEET GENERATOR**

January 17, 2007

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Applicants submit herewith the following Appeal Brief in accordance with the requirements of 37 C.F.R. § 41.37(c).

(1) REAL PARTY IN INTEREST

The real party in interest is TeleCommunication Systems, Inc.

(2) RELATED APPEALS AND INTERFERENCES

The Applicants and their legal representatives and assignee are not aware of any other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the appending appeal.

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(3) STATUS OF THE CLAIMS

Claims 1-98 are pending in this application. Claims 1-98 stand rejected.

(4) STATUS OF AMENDMENTS

All amendments have been entered by the Examiner. Applicants have not attempted any amendments after the Final Office Action dated June 15, 2006.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Organizations of all sizes rely on the Internet to conduct business. Because of the explosion of mobile enterprise solutions, users of wireless or mobile devices are increasingly demanding the delivery of web content for viewing on a variety of platforms ranging from desktop computing units to wireless portable (e.g., handheld) devices such as personal digital assistants (PDAs) and wireless phones. Whether organizations are creating new web applications, or extending existing infrastructure, the new Internet powered world demands that users have access to this content to remain flexible and competitive, and drive stronger customer relationships.

Currently, the appearance of this content varies greatly depending on the platform in which the content is displayed. For example, because of display and bandwidth limitations, a user utilizing a PDA oftentimes cannot access a web page designed for display on a desktop computer, at least not in the manner contemplated by the page designer.

In many cases, certain pieces of content, including memory intensive content such as graphics for example, simply does not need to be displayed to a mobile device user to convey the point of the source page. By displaying only a selected subset of the information from the source page, content may be displayed on a particular platform in a manner that meets the requirements of the requesting device.

Applicant's claimed invention provides an improvement within the art of generating stylesheets. In particular, Applicant's claimed invention provides for an improved system and method for generating a stylesheet that relies on a determination of an address for uniquely locating an item of content to be extracted and a site mining address for locating an item of content in a source page.

Moreover, Applicants' claimed invention provides an improvement within the art of generating stylesheets. In particular, Applicant's claimed invention provides for an improved system and method for generating a stylesheet that better tailors a stylesheet to the capabilities of the device that will be viewing web content. A site template is generated to format a layout of a stylesheet based on capabilities of a mobile device.

A method for, a system performing the process of, a server performing the process of, and a computer program, as recited by claims 1, 24, 44, 54 and 76, for extracting and transforming content from a source page for transmission to a mobile device comprises generating a site template based on capabilities of said mobile device is disclosed at, e.g., page 1, line 21-page 2, line 8; page 6, lines 9-24. A stylesheet is generated from a compiled site template, the stylesheet comprising information indicating the content to be extracted from the source page and transformation information for manipulating the content based on capabilities of the mobile device at, e.g., page 6, line 25-page 7, line 10. A request is received to display the source page from the mobile device at, e.g., page 5, lines 19-26. The stylesheet is applied to the source page to produce a destination page, the destination page comprises the extracted content to be manipulated according to the transformation information at, e.g., page 6, line 9-12. The destination page is transmitted to the mobile device at, e.g., page 5, line 23-26.

A method for, a system performing the process of, a server performing the process of, and a computer program, as recited by claims 7, 30, 47, 60 and 82, for generating a stylesheet comprises receiving an indication of an item of content to be extracted from a source page containing one or more items

of content is disclosed at, e.g., page 5, lines 23-26. An address is determined for uniquely locating the item of content to be extracted at, e.g., page 7, lines 3-10. Transformation information is received for manipulating the item of content at, e.g., page 7, lines 7-23. Storage of the transformation information and the address to a site mining template, e.g., page 6, line 26-page 7, line 10. The transformation information and the address stored in the template are compiled to a stylesheet utilizable for mining content from the source page to produce a destination page containing the extracted content at, e.g., page 7, line 24-page 8, line 15.

A method for, a system performing the process of, a server performing the process of, and a computer program, as recited by claims 20, 42, 51, 72 and 95, for generating a site mining address for use in locating one item of content of a plurality of items of content contained in a source page is disclosed as comprising display of the plurality of items of content on a graphical user interface hierarchically in tree view form at, e.g., page 14, lines 15-28. A selection is received for the one item of content to be extracted from the source page at, e.g., page 14, lines 18-19. Any graphical components of the one item of content selected in the step of receiving a selection are displayed at, e.g., page 14, lines 21-25. A site mining address is generated for locating the one item of content in the source page, where the site mining address is capable of locating content in a document written in an extensible markup language at, e.g., page 7, lines 3-10.

(6) GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- (A) Whether claims 7-23, 30-43, 47-53, 60-75 and 82-98 are obvious under 35 U.S.C. §103(a) over U.S. Patent No. 6,799,299 to Li et al. ("Li").
- (B) Whether claims 1-6, 24-29, 44-46, 54-59 and 76-81 are obvious under 35 U.S.C. §103(a) over Li in view of U.S. Patent No. 6,857,102 to Bickmore et al. ("Bickmore").

(7) **ARGUMENT**

(A) Claims 7-23, 30-43, 47-53, 60-75 and 82-98 are not obvious under 35 U.S.C. §103(a) over Li.

Claims 7-23, 30-43, 47-53, 60-75 and 82-98 respectively recite stylesheet generation that relies on a determination of an address for uniquely locating an item of content to be extracted and a site mining address for locating an item of content in a source page.

The Examiner acknowledged that Li “does not specifically disclose the above expressions as an address” (see Office Action dated June 15, 2006, page 3). However, the Examiner alleged that it would have been obvious to one skilled in the art to “use external HREF link addresses for uniquely locating content, and as part of transformation information, providing the benefit of increasing locations of possible extraction.” (see Office Action dated June 15, 2006, page 3).

Li in Fig. 4A and its accompanying text discloses:

Turning now to FIGS. 14A-14D, an illustration of HTML code is depicted in accordance with a preferred embodiment of the present invention. HTML file 1400 includes the setting of the background color and two line feeds in section 1402 in FIG. 14A. Six HTML links named Home, Products, Documentations, Records, Support, and Contact are centered in section 1404. A stylistic line stored as a graphics interface format (GIF) image is drawn next by the code in section 1406. A title "Employer Records" is added to the document in section 1408. All of these items are features that were not part of the table structure as displayed in FIG. 13.

Thus, Li simply discloses HTML code that includes items that were added to the table structure shown in Fig. 13. NOTHING within Li discloses or suggest use of an address as part of stylesheet generation, much less disclose or suggest stylesheet generation that relied on an address for uniquely locating an item of content to be extracted and a site mining address for locating an item of content in a source page, as recited by claims 7-23, 30-43, 47-53, 60-75 and 82-98.

The Examiner alleged that it would have been obvious to one skilled in the art to “use external HREF link addresses for uniquely locating content, and as part of transformation information, providing the benefit of increasing locations of possible extraction.” (see Office Action dated June 15, 2006, page 3). However, using an address targets content that would **NOT increase** the locations of possible extraction but decrease the extraction to only those items that are at a particular address. Thus, the Examiner’s motivation to modify Li is flawed. The Examiner has never provided any real motivation to modify Li in the manner proposed by the Examiner.

Moreover, the Examiner has failed to show how modifying Li’s invention to use an address for extraction would increase locations of possible extraction. Li’s invention uses pattern matching (see Li, col. 5, lines 62-66). Pattern matching potentially can return a large number of items that match the specified pattern. Thus, Li’s invention already has the benefit of potentially having a large number of locations of possible extraction that would **NOT** benefit from use of an address that would most likely reduce the amount of data extracted.

Moreover, as discussed above, an address allows targeting of content at a particular address. Li’s invention is directed toward finding any content that matches a specified pattern, i.e., teaching use of an open search for content that matches a specified pattern. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. MPEP §2141.02, page 2100-127 (Rev. 2, May 2004) (citing W.L. Gore & Assoc. v. Garlock, Inc., 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)). Li teaches AWAY from stylesheet generation that uses a targeted search for content that results from using an address. The Examiner has failed to even acknowledge the fact that Li teaches away from the claimed features, much less refute such a fact.

Thus, Li relies on pattern matching to determine on which elements an action is to performed. In contrast, Applicant’s claimed features rely on an address. Pattern matching fails to disclose or suggest use of an address, much

less disclose or suggest stylesheet generation that relies on an address for uniquely locating an item of content to be extracted and a site mining address for locating an item of content in a source page, as recited by claims 7-23, 30-43, 47-53, 60-75 and 82-98.

The Examiner argued in the Advisory Action dated October 13, 2006 that Li discloses use of an address, even though the Examiner's rejection dated June 15, 2005 acknowledged that Li "does not specifically disclose the above expressions as an address". Thus, it is not clear from the Advisory Action if the Examiner is relying on a NEW rejection based on anticipation since the Examiner previously acknowledged Li "does not specifically disclose the above expressions as an address" (see Office Action dated June 15, 2006, page 3). Nevertheless, the Applicant responds to the Examiner's comments even though they are not formally used in a rejection.

The Advisory Action dated October 13, 2006 alleged that "Li teaches a portion of code including HREF tags. HREF tags reflect external references within HTML. At the time of the invention, it is well established to designate address locations via HREF tags to fetch various data from external servers." Thus, even if the Examiner's comments were true, the Examiner does not show how Li's HREF tags are used in the process of generating a stylesheet.

The HREF tags that Li discloses are being used to in a conventional manner, i.e., within a web page to reference another HTML document (see, e.g., Fig. 14A). Thus, Li fails to disclose or suggest stylesheet generation that relies on a determination of an address for uniquely locating an item of content to be extracted and a site mining address for locating an item of content in a source page, as recited by claims 7-23, 30-43, 47-53, 60-75 and 82-98.

A benefit of stylesheet generation that relies on an address for uniquely locating an item of content to be extracted and a site mining address for locating an item of content in a source page is, e.g., reduced computation to locate an item of content. Pattern matching by a computer is a relatively processor intensive operation that requires time to complete, the amount of time

dependent on the type of processor used to perform the operation. In contrast, use of an address requires little to no processing by a processor an address directs a processor to an item of content. Thus, use of an address to locate an item of content requires far less computational power from a processor to locate and speeds finding the item of content. The cited prior art fails to disclose or suggest the claimed features having such benefits.

It is respectfully submitted that not only does this rejection fail on its face, and thus is improper, but also in light of the above comments it is clear that Li does not render obvious any of claims 7-23, 30-43, 47-53, 60-75 and 82-98. Thus, the rejection of claims 7-23, 30-43, 47-53, 60-75 and 82-98 under 35 U.S.C. § 103(a) is improper and should be reversed.

(B) Claims 1-6, 24-29, 44-46, 54-59 and 76-81 are not obvious under 35 U.S.C. § 103(a) over Li in view of Bickmore.

Claims 1-6, 24-29, 44-46, 54-59 and 76-81 recite a system and method of generating a site template to format a layout of a stylesheet based on capabilities of a mobile device.

The Examiner acknowledged that Li fails to disclose content selection and style manipulation are expressly performed based on the capabilities of a mobile device client (see Office Action dated June 15, 2006, page 7). However, claims 1-6, 24-29, 44-46, 54-59 and 76-81 recite generating a site template to format a layout of a stylesheet based on capabilities of a mobile device. Thus, the deficiency in Li is that Li fails to disclose generation of a site template to format a layout of a stylesheet based on capabilities of a mobile device, as recited by claims 1-6, 24-29, 44-46, 54-59 and 76-81. The Examiner has never addressed all of the claimed features.

As discussed above, the Examiner acknowledges that Li fails to disclose content selection and style manipulation are expressly performed based on the capabilities of a mobile device client (see Office Action dated June 15, 2006, page 7). The Examiner relies on Bickmore to allegedly make up for the deficiencies in Li to arrive at the claimed features.

The Examiner alleged that Brickmore discloses generating a site template based on capabilities of a mobile device and generating content and style transformation information based on capabilities of a mobile device in Figs. 1, 2, 11 and 16; and col. 3, line 55-col. 5, line 16. The Applicant respectfully disagrees.

Brickmore appears to disclose an automatic re-authoring system and method to re-author a document originally designed for display on a desktop computer screen for display on a smaller display screen, such as a PDA or a cellular telephone (Abstract). A document is defined as any set of information retrieved as a single entity from a distributed network, such as the Internet (See Brickmore, col. 6, lines 17-29).

Thus, Brickmore disclose automatic re-authoring of a document from the Internet. However, contrary to the Examiner allegation, Brickmore fails to even mention use of a site template and a stylesheet, much less a site template to format a layout of a stylesheet, much less a system and method generating a site template to format a layout of a stylesheet based on capabilities of a mobile device, as recited by claims 1-6, 24-29, 44-46, 54-59 and 76-81.

The Examiner argued in the Response to Arguments section of the Office Action that Brickmore discloses a site template based on capabilities of a mobile device (see Office Action dated June 15, 2006, page 8). However, Applicant's claimed site template is used to format a layout of a stylesheet. Thus, even if Brickmore discloses a site template based on capabilities of a mobile device, although the Applicant could not find mention of use of any type of template, Brickmore's acknowledged site template that is based on capabilities of a mobile device is **NOT** a site template to format a layout of a stylesheet based on capabilities of a mobile device, as recited by claims 1-6, 24-29, 44-46, 54-59 and 76-81.

Thus, Li modified by Brickmore would STILL fail to disclose or suggest a site template to format a layout of a stylesheet, much less a system and method generating a site template to format a layout of a stylesheet based

on capabilities of a mobile device, as recited by claims 1-6, 24-29, 44-46, 54-59 and 76-81.

Moreover, even if Brickmore disclosed use of a site template and a stylesheet, which as discussed above Brickmore fails to even mention, there is no suggestion within the prior art to modify Li with the disclosure of Brickmore. “Teachings of references can be combined only if there is some suggestion or incentive to do so.” In re Fine, 5 USPQ2d 1596,1600 (Fed. Cir. 1988) (quoting ACS Hosp. Sys. v. Montefiore Hosp., 221 USPQ 929, 933 (Fed. Cir. 1984)) (emphasis in original). The Examiner alleges that Li discloses transformation for various devices, such as a notebook, handheld or PDA (See Office Action, page 7). Thus, although Li recognized various devices having various capabilities, Li fails to even mention performing different types of transformations for different types of devices. Li fails to disclose or suggest any NEED to be modified to perform any function based on capabilities of a mobile device, with any such modification of Li based on improper hindsight. The Examiner has failed to refute the fact that Li lacks any type of NEED to be modified to perform any function based on capabilities of a mobile device, with any such modification of Li based on improper hindsight, with any such modification being based on improper hindsight.

The Examiner alleged that it would have been obvious to perform the content selection and style transformation of Li according to the capabilities of a mobile device client as taught by Brickmore as that the appropriate amount of style of content would have been displayed on a mobile device having a limited display as taught by Brickmore in col. 3, lines 55-63. The Applicants respectfully disagree.

Brickmore at col. 3, lines 55-63 appears to disclose “automatic re-authoring ... to provide broad access to web documents or other web content from a wide range of devices”. However, Brickmore is able to perform such automatic re-authoring to provide broad access to web documents or other web content from a wide range of devices WITHOUT generating a site template to format a layout of a stylesheet based on capabilities of a mobile device.

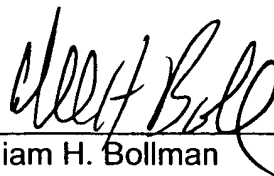
Modifying Li with Brickmore's disclosed method to perform such automatic re-authoring to provide broad access to web documents or other web content from a wide range of devices would result in the benefit that the Examiner relies on WITHOUT generating a site template to format a layout of a stylesheet based on capabilities of a mobile device. The Examiner has STILL failed to provide reason why one skilled in the art would modifying Li with anything other than Brickmore's disclosure to arrive at the relied on benefit.

It is respectfully submitted that not only does this rejection fail on its face, and thus is improper, but also in light of the above comments its clear that Li in view of Bickmore does not render obvious any of claims 1-6, 24-29, 44-46, 54-59 and 76-81. Thus, the rejection of claims 1-6, 24-29, 44-46, 54-59 and 76-81 under 35 U.S.C. § 103(a) is improper and should be reversed.

CONCLUSION

For all the reasons set forth above, the rejections of claims 1-98 are improper and should be reversed. The Applicants therefore respectfully request that this Appeal be granted and that the rejections of the claims be reversed.

Respectfully submitted,



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CLAIMS APPENDIX

CLAIMS INVOLVED IN THE APPEAL

1. A method for extracting and transforming content from a source page for transmission to a mobile device, said method comprising:

generating a site template based on capabilities of said mobile device;

generating a stylesheet from a compiled site template, said stylesheet comprising information indicating said content to be extracted from said source page and transformation information for manipulating said content based on capabilities of said mobile device;

receiving a request to display said source page from the mobile device;

applying said stylesheet to said source page to produce a destination page, said destination page comprises said extracted content to be manipulated according to said transformation information; and

transmitting said destination page to said mobile device.

2. The method of claim 1, wherein the step of applying the stylesheet comprises:

retrieving said source page from a web server; and

identifying said content to be extracted using a site mining expression.

3. The method of claim 1, further comprising:

determining a site mining expression for uniquely locating said content to be extracted.

4. The method of claim 1, wherein the step of generating a stylesheet comprises:

receiving and storing to a site mining template said information indicating said content to be extracted and said transformation information for manipulating said content; and

compiling said template to produce said stylesheet.

5. The method of claim 1, wherein:

said source page comprises a XML compliant document.

6. The method of claim 1, wherein:

said source page comprises a HTML document.

7. A method for generating a stylesheet, comprising:

receiving an indication of an item of content to be extracted from a source page containing one or more items of content;

determining an address for uniquely locating said item of content to be extracted;

receiving transformation information for manipulating said item of content;

storing said transformation information and said address to a site mining template; and

compiling said transformation information and said address stored in said template to a stylesheet utilizable for mining content from said source page to produce a destination page containing said extracted content.

8. The method of claim 7, further comprising:
receiving format information for formatting a layout of the
stylesheet.

9. The method of claim 7, further comprising:
receiving an indication of said source page;
retrieving said source page; and
displaying said one or more items of content contained in said
source page for allowing a selection of said content to be extracted.

10. The method of claim 7, wherein:
said transformation information includes procedural tags for
controlling a processing routine in said stylesheet.

11. The method of claim 7, wherein:
said transformation information includes transformation tags for
manipulating content extracted from said source page in said stylesheet.

12. The method of claim 7, wherein:
said item of content is delineated by one or more tags.

13. The method of claim 7, wherein the step of converting said
transformation information comprises:

compiling said template with a two pass compilation process, a first
pass generating a main body of said stylesheet and a second pass generating
commands located outside of said main body.

14. The method of claim 7, wherein the step of determining an address further comprises:

receiving filtering criteria to indicate content to be extracted, said criteria comprising at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

15. The method of claim 7, wherein the step of determining an address further comprises:

receiving an indication of a root element; and

displaying content stemming from said root element;

wherein said content to be extracted is selected from said item of content stemming from said root element; and

wherein said address is determined by combining an expression locating said root element with an expression locating said selected content relative to said root element.

16. The method of claim 7, wherein:

said source page comprises a XML compliant document.

17. The method of claim 7, wherein:

said source page comprises a HTML document.

18. The method of claim 7, wherein:

said address comprises an XPath syntax expression.

19. The method of claim 7, wherein:

said stylesheet includes a XSLT stylesheet.

20. A method for generating a site mining address for use in locating one item of content of a plurality of items of content contained in a source page, said method comprising:

displaying said plurality of items of content on a graphical user interface hierarchically in tree view form;

receiving a selection for said one item of content to be extracted from said source page;

displaying any graphical components of said one item of content selected in said step of receiving a selection; and

generating a site mining address for locating said one item of content in said source page;

wherein said site mining address is capable of locating content in a document written in an extensible markup language.

21. The method of claim 20, wherein:

said site mining address comprises an XPath expression.

22. The method of claim 20, further comprising:

receiving said step of filtering criteria for indicating content to be extracted;

wherein said criteria includes at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

23. The method of claim 20, further comprising:
receiving a designation of an item of content as a root element; and
displaying items of content stemming from said root element;
wherein said item of content to be extracted is selected from said
item of content stemming from said root element; and
wherein said address is determined by combining an expression
locating said root element with an expression locating said item of content to be
extracted relative to said root element.

24. A system comprising a central computer for extracting and
transforming content from a source page for transmission to a mobile device,
said system comprising:

a processor to generate a site template based on capabilities of
said mobile device;

a processor to generate a stylesheet from a compiled site template
including information indicating said content to be extracted from said source
page and transformation information for manipulating said content based on
capabilities of said mobile device;

an interface in communication with said processor to receive a
request to display said source page from said mobile device and to transmit a
destination page to said mobile device;

wherein, upon receiving said request, said processor applies said
stylesheet to said source page to produce a destination page which includes said
extracted content manipulated according to said transformation information.

25. The system of claim 24, wherein:

said processor applies said stylesheet by retrieving said source page from a web server and by identifying said content to be extracted using a site mining expression.

26. The system of claim 24, wherein:

said processor is further capable of determining a site mining expression for uniquely locating said content to be extracted.

27. The system of claim 24, wherein:

said processor generates said stylesheet by receiving and storing to a site mining template said information indicating said content to be extracted and said transformation information for manipulating said content and compiling said template to produce said stylesheet.

28. The system of claim 24, wherein:

said source page comprises a XML compliant document.

29. The system of claim 24, wherein:

said source page comprises a HTML document.

30. A system comprising a central computer for generating a stylesheet, said system comprising:

an interface to receive an indication of an item of content to be extracted from a source page containing one or more items of content and for receiving transformation information for manipulating said item of content;

a processor in communication with said interface to determine an address for uniquely locating said item of content to be extracted;

a memory to store a site mining template to transform information and said address; and

a compiler to convert said transformation information and said address stored in said template to a stylesheet utilizable for mining content from said source page to produce a destination page containing said extracted content.

31. The system of claim 30, wherein:

said interface receives an indication of said source page, retrieves said source page, and transmits said one or more items of content contained in said source page to a display for allowing a selection of said content to be extracted.

32. The system of claim 30, wherein:

said transformation information includes procedural tags for controlling a processing routine in said stylesheet.

33. The system of claim 30, wherein:

said transformation information includes transformation tags for manipulating content extracted from said source page in said stylesheet.

34. The system of claim 30, wherein:

said item of content is delineated by one or more tags.

35. The system of claim 30, wherein:

said compiler converts said information using a two pass compilation process, wherein a first pass generating a main body of said stylesheet and a second pass generating commands located outside of said main body.

36. The system of claim 30, wherein:

said processor determines said address by receiving filtering criteria via said interface for indicating content to be extracted;

wherein said criteria includes at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

37. The system of claim 30, wherein:

said processor determines said address by receiving an indication of a root element via said interface and transmitting content stemming from said root element to a display, said content to be extracted is selected from said item of content stemming from said root element, and said address is determined by combining an expression locating said root element with an expression locating said selected content relative to said root element.

38. The system of claim 30, wherein:

said source page comprises a XML compliant document.

39. The system of claim 30, wherein:

said source page comprises a HTML document.

40. The system of claim 30, wherein:

said address comprises an XPath syntax expression.

41. The system of claim 30, wherein:
said stylesheet includes a XSLT stylesheet.

42. A system comprising a central computer for generating a site mining address for use in locating one item of content of a plurality of items of content contained in a source page, said system comprising:

an interface for transmitting said plurality of items of content to a graphical user interface for hierarchically display in tree view form and receiving a selection from said graphical user interface for said one item of content; and

a processor in communication with said interface and capable of generating a site mining address for locating said one item of content in said source page, said site mining address is capable of locating content in a document written in an extensible markup language;

wherein said one item of content is to be extracted from said source page; and

wherein said interface transmits any graphical components of said one item of content for display on said graphical user interface upon receiving said selection.

43. The system of claim 42, wherein:
said site mining address comprises an XPath expression.

44. A system for extracting and transforming content from a source page for transmission to a mobile device, said system comprising:

a server comprising a processor and a memory, said processor generating a site template based on capabilities of said mobile device, generating a stylesheet from a compiled site template that comprises information indicating said content to be extracted from said source page and transformation information for manipulating said content based on capabilities of said mobile device, receiving from said mobile device a request to display said source page, applying said stylesheet to said source page to produce a destination page that includes said extracted content manipulated according to said transformation information and transmitting said destination page to said mobile device.

45. The system of claim 44, wherein:

said processor is further capable of determining a site mining expression for uniquely locating said content to be extracted.

46. The system of claim 44, wherein:

said stylesheet is generated by receiving and storing to a site mining template said information indicating said content to be extracted and said transformation information for manipulating said content, and compiling said template to produce said stylesheet.

47. A system for generating a stylesheet, said system comprising:
a server comprising a memory and processor to receive format information to format a layout of said stylesheet, to receive an indication of an item of content to be extracted from a source page containing one or more items of content, to determine an address for uniquely locating said item of content to be extracted, to receive transformation information for manipulating said item of content, to store said format information, said transformation information and said address to a site mining template, and to compile said transformation information and said address stored in said template to a stylesheet utilizable for mining content from said source page to produce a destination page containing said extracted content.

48. The system of claim 47, wherein:
said transformation information includes transformation tags for manipulating content extracted from said source page in said stylesheet.

49. The system of claim 47, wherein:
said address is determined by receiving filtering criteria for indicating content to be extracted, said criteria comprising at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page, and content containing specific text.

50. The system of claim 47, wherein:

said address is determined by receiving an indication of a root element and displaying content stemming from said root element, said content to be extracted is selected from said item of content stemming from said root element and said address is determined by combining an expression locating said root element with an expression locating said selected content relative to said root element.

51. A system for generating a site mining address for use in locating one item of content of a plurality of items of content contained in a source page, said system comprising:

a server comprising a memory and a processor to display said plurality of items of content on a graphical user interface hierarchically in tree view form, to receive a selection for said one item of content to be extracted from said source page, to display any graphical components of said one item of content and to generate a site mining address for locating said one item of content in said source page, said site mining address to locate content in a document written in an extensible markup language.

52. The system of claim 51, wherein:

said processor is further capable of receiving filtering criteria for indicating content to be extracted;

wherein said criteria comprises at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

53. The system of claim 51, wherein:

said processor is further capable of receiving a designation of an item of content as a root element and displaying items of content stemming from said root element;

wherein said item of content to be extracted is selected from said item of content stemming from said root element, and said address is determined by combining an expression locating said root element with an expression locating said item of content to be extracted relative to said root element.

54. A computer program implemented on a computer-readable medium for extracting and transforming content from a source page for transmission to a mobile device, said program comprising:

computer-readable instructions to generate a site template based on capabilities of said mobile device;

computer-readable instructions to generate a stylesheet from a compiled site template comprising information indicating said content to be extracted from said source page and transformation information for manipulating said content based on capabilities of said mobile device;

computer-readable instructions to receive a request to display said source page from said mobile device;

computer-readable instructions to apply said stylesheet to said source page to produce a destination page comprising said extracted content manipulated according to said transformation information; and

computer-readable instructions to transmit said destination page to said mobile device.

55. The computer program of claim 54, further comprising:

computer-readable instructions to receive said source page from a web server; and

computer-readable instructions to identify said content to be extracted using a site mining expression.

56. The computer program of claim 54, further comprising:
computer-readable instructions to determine a site mining
expression for uniquely locating said content to be extracted.

57. The computer program of claim 54, further comprising:
computer-readable instruction to receive and to store to a site
mining template said information indicating said content to be extracted and said
transformation information for manipulating said content; and
computer-readable instructions to compile said template to produce
said stylesheet.

58. The computer program of claim 54, wherein:
said source page comprises a XML compliant document.

59. The computer program of claim 54, wherein:
said source page comprises a HTML document.

60. A computer program implemented on a computer-readable medium for generating a stylesheet, said program comprising:

- computer-readable instructions to receive an indication of an item of content to be extracted from a source page containing one or more items of content;

- computer-readable instructions to determine an address for uniquely locating said item of content to be extracted;

- computer-readable instructions to receive transformation information for manipulating said item of content;

- computer-readable instructions to store said transformation information and said address to a site mining template; and

- computer-readable instructions to compile transformation information and said address stored in said template to a stylesheet utilizable for mining content from said source page to produce a destination page containing said extracted content.

61. The computer program of claim 60, wherein said program further comprises:

- computer-readable instructions to receive an indication of said source page;

- computer-readable instructions to receive said source page; and

- computer-readable instructions to display said one or more items of content contained in said source page to allow a selection of said content to be extracted.

62. The computer program of claim 60, wherein said transformation information comprises:

- procedural tags to control a processing routine in said stylesheet.

63. The computer program of claim 60, wherein said transformation information comprises:

transformation tags to manipulate content extracted from said source page in said stylesheet.

64. The computer program of claim 60, wherein:
said item of content is delineated by one or more tags.

65. The computer program of claim 60, wherein said instructions for converting further comprises:

computer-readable instructions to compile said template with a two pass compilation process, a first pass to generate a main body of said stylesheet and a second pass to generate commands located outside of said main body.

66. The computer program of claim 60, wherein said instructions for determining an address further comprises:

computer-readable instructions to receive filtering criteria for indicating content to be extracted, said criteria comprising at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

67. The computer program of claim 60, wherein said instructions for determining an address further comprises:

computer-readable instructions to receive an indication of a root element; and

computer-readable instructions to display content stemming from said root element, said content to be extracted is selected from said item of content stemming from said root element and said address is determined by combining an expression locating said root element with an expression locating said selected content relative to said root element.

68. The computer program of claim 60, wherein:
said source page comprises a XML compliant document.

69. The computer program of claim 60, wherein:
said source page comprises a HTML document.

70. The computer program of claim 60, wherein:
said address comprises an XPath syntax expression.

71. The computer program of claim 60, wherein:
said stylesheet includes a XSLT stylesheet.

72. A computer program implemented on a computer-readable medium for generating a site mining address for use in locating one item of content of a plurality of items of content contained in a source page, said program comprising:

- computer-readable instructions to display said plurality of items of content on a graphical user interface hierarchically in tree view form;

- computer-readable instructions to receive a selection for said one item of content to be extracted from said source page;

- computer-readable instructions to display any graphical components of said one item of content; and

- computer-readable instructions to generate a site mining address for locating said one item of content in said source page, said site mining address being capable of locating content in a document written in an extensible markup language.

73. The computer program of claim 72, wherein:

- said site mining address comprises an XPath expression.

74. The computer program of claim 72, further comprising:

- computer-readable instructions to receive filtering criteria for indicating content to be extracted, said criteria comprising at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

75. The computer program of claim 72, further comprising:
computer-readable instructions to receive a designation of an item of content as a root element; and

computer-readable instructions to display an item of content stemming from said root element, said item of content to be extracted is selected from said item of content stemming from said root element, and said address is determined by combining an expression locating said root element with an expression locating said item of content to be extracted relative to said root element.

76. A system for extracting and transforming content from a source page for transmission to a mobile device, said system comprising:

means for generating a site template based on capabilities of said mobile device;

means for generating a stylesheet from a compiled site template comprising information indicating said content to be extracted from said source page and transformation information for manipulating said content based on capabilities of said mobile device;

means for receiving from said mobile device a request to display said source page;

means for applying said stylesheet to said source page to produce a destination page comprising said extracted content manipulated according to said transformation information; and

means for transmitting said destination page to said mobile device.

77. The system of claim 76, further comprising:

means for retrieving said source page from a web server; and

means for identifying said content to be extracted using a site mining expression.

78. The system of claim 76, further comprising:
means for determining a site mining expression for uniquely locating said content to be extracted.

79. The system of claim 76, further comprising:
means for receiving and storing to a site mining template said information indicating said content to be extracted and said transformation information for manipulating the content; and
means for compiling said template to produce said stylesheet.

80. The system of claim 76, wherein:
said source page comprises a XML compliant document.

81. The system of claim 76, wherein:
said source page comprises a HTML document.

82. A system for generating a stylesheet, said system comprising:
means for receiving an indication of an item of content to be extracted from a source page containing one or more items of content;
means for determining an address to uniquely locate said item of content to be extracted;
means for receiving transformation information to manipulate said item of content;
means for storing said transformation information and said address to a site mining template; and
means for converting said transformation information and said address stored in said template to a stylesheet to mine content from said source page to produce a destination page containing said extracted content.

83. The system of claim 82, further comprising:
means for receiving format information to format a layout of said
stylesheet; and
means for storing said format information to said template.

84. The system of claim 82, further comprising:
means for receiving an indication of said source page;
means for retrieving said source page; and
means for displaying said one or more items of content contained in
said source page to allow a selection of said content to be extracted.

85. The system of claim 82, wherein:
said transformation information includes procedural tags for
controlling a processing routine in said stylesheet.

86. The system of claim 82, wherein:
said transformation information includes transformation tags for
manipulating content extracted from said source page in said stylesheet.

87. The system of claim 82, wherein:
said item of content is delineated by one or more tags.

88. The system of claim 82, further comprising:
means for compiling said template with a two pass compilation
process, a first pass generates a main body of said stylesheet and a second
pass generates commands located outside of said main body.

89. The system of claim 82, further comprising:

means for receiving filtering criteria to indicate content to be extracted, said criteria comprising at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

90. The system of claim 82, further comprising:

means for receiving an indication of a root element; and

means for displaying content stemming from said root element, said content to be extracted is selected from said item of content stemming from said root element;

wherein said address is determined by combining an expression locating said root element with an expression locating said selected content relative to said root element.

91. The system of claim 82, wherein:

said source page comprises a XML compliant document.

92. The system of claim 82, wherein:

said source page comprises a HTML document.

93. The system of claim 82, wherein:

said address comprises an XPath syntax expression.

94. The system of claim 82, wherein:

said stylesheet includes a XSLT stylesheet.

95. A system for generating a site mining address for use in locating one item of content of a plurality of items of content contained in a source page, said system comprising:

means for displaying said plurality of items of content on a graphical user interface hierarchically in tree view form;

means for receiving a selection for said one item of content extracted from said source page;

means for displaying graphical components of said one item of content; and

means for generating a site mining address to locate said one item of content in said source page, said site mining address to locate content in a document written in an extensible markup language.

96. The system of claim 95, wherein:

said site mining address comprises an XPath expression.

97. The system of claim 95, further comprising:

means for receiving filtering criteria to indicate content to be extracted, wherein said criteria includes at least one of selecting a single item of content located at a particular position, siblings of said item of content, similarly named siblings of said item of content, similarly named items of content located anywhere within said source page and content containing specific text.

98. The system of claim 95, further comprising:

means for receiving a designation of an item of content as a root element; and

means for displaying items of content stemming from said root element;

wherein said item of content to be extracted is selected from said item of content stemming from said root element and said address is determined by combining an expression locating said root element with an expression locating said item of content to be extracted relative to said root element.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None